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**EXTENDED  
ABSTRACT**

# Perception of Eating Disorder and Body Image Dissatisfaction Among Female Elite Gymnastics Club

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## I. INTRODUCTION

Eating disorders are severe mental illnesses marked by irregular eating patterns that have a substantial negative influence on a person's physical and emotional well-being. According to World Health Organization, 14 million people experienced eating disorders including almost 3 million children and adolescents [1]. Body image dissatisfaction is a serious problem that arises from a negative self-perception of one's physical form. Females in Malaysia expressed more dissatisfaction of their body parts and weight as compared to males [2]. Eating disorders and body image dissatisfaction pose significant risks for female elite gymnasts, who face unique pressures to maintain specific physiques for performance and aesthetics. This study investigates eating disorder risks, levels of body image dissatisfaction, and their interrelation among female gymnasts, addressing crucial gaps in understanding and contributing to prevention and intervention strategies for this vulnerable athletic population.

## II. METHODS

This study employed a quantitative, non-experimental research design using structured survey questionnaires to collect data from 32 female gymnasts aged 13 and above from the Elite Gymnastics Club. Data collection involved three sections: Section A gathered demographic information such as age, race, education, height, and weight. Next, section B utilized the standardized Eating Attitudes Test (EAT-26) [3] to assess eating disorder risk, attitudes, and pathogenic behaviors through a 6-point Likert scale; Section C applied the Body Image Dissatisfaction Questionnaire (BID) [4] consisting of 19 items rated on a 5-point Likert scale to evaluate perceptions and feelings toward physical appearance. Descriptive analysis described the sample profile, while correlational analysis explored relationships between eating disorder risk and body image dissatisfaction. Jamovi statistical software facilitated data analysis to ensure accuracy and reliability in identifying critical trends and associations among variables relevant to the study objectives.

## III. RESULTS AND DISCUSSION

### A. Eating Disorder

Pathogenic behaviour showed the highest risk ( $M = 4.56$ ,  $SD = 0.592$ ), indicating consistent concern among gymnasts. High rates of pathogenic behaviors that were found in our sample included binge eating, purging, and the use of laxatives, diet pills, or diuretics [5]. All of which signal a deep-

rooted preoccupation with weight control and body image that transcends ordinary dietary habits. Overall eating disorder risk followed ( $M = 4.00$ ,  $SD = 1.25$ ) with more variation. Eating attitudes were lowest ( $M = 3.96$ ,  $SD = 1.11$ ) which assesses psychological and emotional attitudes toward food and eating habits. Although this dimension scored lower than the others, the findings still point to underlying issues such as guilt associated with eating, fear of gaining weight, and rigid thinking about food choices. These findings highlight pathogenic behaviors as the most prevalent eating disorder risk factor.

TABLE I  
DESCRIPTIVE ON THE LEVEL OF EATING DISORDER

	Mean	SD	Ranking
Pathogenic Behaviour	4.56	0.592	1
Eating Disorder Risk	4.00	1.25	2
Eating Attitudes	3.96	1.11	3

\*Note.  $p$ -value < 0.01

### B. Body Image Dissatisfaction

Body image dissatisfaction averaged 3.37 ( $SD = 0.584$ ), showing low variation across participants. This consistency suggests that most gymnasts experience similar levels of dissatisfaction, which often starts young and ties directly to performance and identity. This uniformity can be attributed to the sport's aesthetic-driven environment, where a lean and toned body is not only preferred but often expected for both competitive performance and visual appeal. These results reinforce how body image concerns are widespread and persistent in elite gymnastics.

TABLE II  
DESCRIPTIVE OF BODY IMAGE DISSATISFACTION

	Level of Body Image	Mean	SD
Body Image Dissatisfaction	High	3.37	0.584

### C. Relationship Between ED and BID

Analysis revealed a very strong positive correlation between eating disorder risk and body image dissatisfaction ( $r = 0.904$ ,  $p < 0.001$ ) among 32 gymnasts. This significant result confirms that higher dissatisfaction strongly predicts increased eating disorder risk. The relationship between being overweight and disordered eating was largely mediated by

BID (desire to be smaller) [6]. By using validated screening tools like the EAT-26 and BID Questionnaire, professionals can identify at-risk athletes early and provide timely support, reducing the potential for long-term health risks in this vulnerable population. These findings highlight the urgent need for early prevention and targeted interventions for female elite gymnasts.

TABLE III  
RELATIONSHIP BETWEEN ED AND BID

	r2	p	n
Eating Disorder	0.904	<0.001	32
Body Image Dissatisfaction	0.904	<0.001	32

#### IV. CONCLUSIONS

The study confirms that eating disorders and body image dissatisfaction are significant, consistent risks for female gymnasts and suggesting that reduced performance and appearance-related pressures may be associated with fewer disordered eating behaviors [7]. The strong correlation found urges coaches, parents, and policymakers to implement early screening, education, and prevention strategies to protect athletes' health and promote positive body image in competitive sports. As suggested in the study, coaches should be involved in an educational process where the body weight has to remain within certain limits [8]. These findings highlight the importance of cultivating a sport environment that prioritizes psychological well-being alongside physical performance. Coaches and mentors play a critical role in shaping athletes' body perceptions and must be trained to recognize early warning signs and respond with compassion and guidance. Introducing athlete-centred wellness programs, such as routine psychological check-ins and body image education sessions, can serve as proactive measures to mitigate risk. Sports federations should consider developing stricter protocols against weight-shaming and appearance-based feedback during training and competition. Future research should explore longitudinal impacts of body dissatisfaction and expand the sample across different age groups, ethnicities, and gymnastic disciplines to design more inclusive and effective support systems.

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